I. **Drug Classes detected, cut-off calibrator concentrations used, and estimated concentration of other drugs in each class to produce a positive response**

   a. **AMP** AMPHETAMINES Cut-off calibrator is 1000 ng/mL d-Amphetamine  
      i. MDA  5000 ng/mL  
      ii. Phentermine  3000 ng/mL  
   
   b. **MET** METHAMPHETAMINE Cut-off is 500 ng/mL d-Methamphetamine  
      i. MDMA  1000 ng/mL  
      ii. Ephedrine  50,000 ng/mL  
   
   c. **BAR** BARBITUATES Cut-off is 300 ng/mL Secobarbital  
      i. Allobarbital  1500 ng/mL  
      ii. Amobarbital  1500 ng/mL  
      iii. Butalbital  300 ng/mL  
      iv. Phenobarbital  400 ng/mL  
      v. Pentobarbital  400 ng/mL  
   
   d. **BZO** BENZODIAZEPINES Cut-off is 300 ng/mL Oxazepam  
      i. Alprazolam (Xanax)  150 ng/mL  
      ii. Lorazepam (Ativan )  1500 ng/mL  
      iii. Diazepam (Valium)  150 ng/mL  
      iv. Chlordiazepoxide (Librium)  2000 ng/mL  
      v. Triazolam (Halcion)  1500 ng/mL  
      vi. Temazepam (Restoril)  150 ng/mL  
   
   e. **COC** COCAINE Cut-off is 300 ng/mL Benzoylecgonine  
   
   f. **THC** Cannabinoids Cut-off is 50 ng/mL 11-nor-delta 9 THC 9 COOH  
   
   g. **OPI** OPIATES Cut-off is 300 ng/mL of Morphine  
      i. Codeine  300 ng/mL  
      ii. Morphine-3-glucuronide  500 ng/mL  
      iii. Hydrocodone  1000 ng/mL  
      iv. Hydromorphone  400 ng/mL  
      v. Heroin  1000 ng/mL  
      vi. 6 Monoacetyl-morphine  500 ng/mL  
      vii. Dihydrocodeine  500 ng/mL
h. **OXY OXYCODONE**
   i. Hydrocodone 800 ng/mL
   ii. Oxymorphone 1000 ng/mL
   iii. Codeine 10,000 ng/mL
i. **MTD METHADONE** Cut-off is 300 ng/mL Methadone
j. **BUP** Buprenorphine Cut-off is 10 ng/mL of Buprenorphine
   i. Buprenorphine glucuronide 5 ng/mL

II. **Unexpected Results**
   a. Amphetamine Test: *Ritalin will not be detected by the amphetamine immunoassay.* High concentrations of labetalol, trazodone, or ranitidine can on occasion give a positive result.
   b. Cannabinoids: the anti-viral drug Efavirenz can produce a false positive result. Very high levels (overdose concentrations) of NSAIDS can on rare occasions produce a false positive result.
   c. Opiates: Rifampin can produce a false positive result. Poppy seed ingestion can give a positive test result.
   d. Oxycodone: **Hydrocodone** will give a positive opiate result and if present at higher concentrations will also give a positive oxycodone result.
   e. Benzodiazepines: *Lorazepam and Clonazepam* are not detected well by the antibody and will on most occasions result in a negative test result even if the patient is taking the drug.

III. **What does a positive result mean?**
   a. The patient is compliant, taking the drug as prescribed.
   b. Patient is partially compliant.
   c. Patient taking another drug which produces a positive result in the test.

IV. **What does a negative result mean?**
   a. Patient is not compliant, not taking the drug.
   b. Patient taking the drug incorrectly (lower dose, less frequent)
   c. The drug is present but below the cut-off concentration for a positive test.
   d. Altered pharmacokinetic variables such as poor absorption, rapid metabolism.
   e. The test does not detect the prescribed drug.
   f. Diluted or adulterated sample.

V. **Window of detection**
   a. Amphetamine 2 – 4 days
   b. Methamphetamine 1 – 2 days
   c. Barbituates 2 – 5 days (longer for Phenobarbital)
d. Benzodiazepines 1 – 3 days (longer for Diazepam)
e. THC Cannabinoids
   i. Intermittent use 2 – 3 days
   ii. Moderate use 5 – 14 days
   iii. Chronic use 10 – 28 days
f. Cocaine 2 – 3 days
g. Opiates 2 – 4 days
h. Oxycodone 1 – 2 days
i. Methadone 2 – 3 days
j. Buprenorphine 2 – 3 days